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State of California

Business, Transportation and Housing Agency

Memorandum

To : Jeannie Baker
Henry Bass
Jeff Loudon
Ken Van Velsor

Date: November 6, 1998

File: BLMB Mitigation Agreement

From: **DEPARTMENT OF TRANSPORTATION**
District 3 - Office of Environmental Management - Sacramento

Subject : Beach Lake Mitigation Agreement

Attached for your information is a copy of our "Agreement on Mitigation Strategy pertaining to the Implementation and Operation of the Beach Lake Mitigation Bank". This is just a reminder that the Beach Lake Mitigation Bank was set up to off-set appropriate habitat impacts from transportation projects in a 14-county area in the lower Sacramento Valley and upper San Joaquin Valley. Please carefully read the criteria for utilizing the bank, and encourage your staff to consider using Beach Lake as a possible mitigation site for your projects as appropriate. Thanks.

JOHN D. WEBB, Chief
Office of Environmental Management - Sacramento

Attachment
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AGREEMENT ON MITIGATION STRATEGY
pertaining to
IMPLEMENTATION AND OPERATION OF
THE BEACH LAKE MITIGATION BANK

I. INTRODUCTION

The purpose of this document is to implement the terms of the Memorandum of Agreement (May 13, 1991) entered into by the California Department of Transportation, the Federal Highway Administration, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, and the California Department of Fish and Game recognizing the importance of early coordination and planning for mitigation of impacts to natural resources. The major goal of early coordination is to identify all opportunities to avoid and/or minimize impacts to valuable resources. A secondary goal is to increase the probability of successfully replacing unavoidable resource losses with high quality replacement habitat, and to realize the maximum benefits from the mitigation expenditure.

Planning for and providing compensation in advance for unavoidable losses from transportation impacts is one approach to minimize the adverse impacts from lost habitat. Advance compensation affords several advantages over the customary method, including: 1) it generally involves a more effective planning effort, often allowing integration into larger efforts that are consistent with and add to regional preservation goals and objectives; 2) the less restrictive time constraints offer the opportunity to evaluate and select the more suitable sites and conditions; 3) advance compensation may reduce temporal losses of wetland functional values; 4) it creates a cooperative atmosphere resulting in more amicable negotiations and early resolution of conflicts; and 5) it may minimize project delays.

The technique of mitigation banking is a method of providing advance compensation for similar impacts from several future projects in a consolidated effort. The additional advantages of a banking approach are: 1) compensation for small losses that otherwise may not be fully or successfully replaced; 2) the consolidation of piecemeal efforts increases management options and larger habitats often provide greater benefits as well as offer greater long-term protection; 3) economies of scale in both creation and maintenance; 4) easier monitoring and evaluation; and 5) public awareness of the habitat restoration can increase the incentive for additional public and private efforts.

II. PURPOSE

The California Department of Transportation (Caltrans) in cooperation with the Federal Highway Administration has proposed

creation of the Beach Lake Mitigation Bank (hereafter referred to as the Bank) on Caltrans property in Sacramento County, south of the City of Freeport. This Agreement on Mitigation Strategy outlines the intention, conditions, and procedures under which Caltrans will restore to high quality habitat a 142 acre parcel at Beach Lake, for the purpose of receiving compensation credit for unavoidable losses to wetland and sensitive upland resources from future transportation projects. The Bank will primarily provide freshwater wetland and woody riparian habitats, but will also create upland components by design (e.g. oak woodland). The needs of endangered species associated with these habitat types will be an important consideration in the design of restored habitats.

Implementation of the bank will facilitate compliance with Executive Order 11990 (Protection of Wetlands), the Clean Water Act (33 USC, 1344), Fish and Wildlife Coordination Act (16 USC, 661-667), and the Federal and California Endangered Species Acts by providing high value replacement habitat for unavoidable impacts associated with Caltrans activities while maximizing benefits to the natural environment. Although it is recognized that off-site mitigation is not the preferred option, it is also recognized that on-site habitat restoration, at times, is impossible to accomplish, can come with such ecological risks that successful mitigation cannot be assured, or can only be accomplished at impracticable cost. Because the Bank is being developed in conjunction with a multi-agency project to restore, enhance, and protect a large tract of wildlife habitat known as the Stone Lakes National Wildlife Refuge, its individual habitat values will be amplified and significantly contribute to regional habitat preservation goals. The Bank will be particularly practical for those projects with minor individual, but substantial cumulative impacts, which is often the case with improvements/modifications to existing transportation facilities. Inter-agency mitigation coordination will be simplified because the bank will provide functioning, high quality habitat in advance of an impact, which can be better evaluated and more easily agreed upon than a paper plan.

This agreement establishes a classification scheme for the habitats that will be the units of exchange in the banking process. It provides the conditions under which the bank can be used for compensation of project impacts. It outlines a methodology for evaluating habitat values for both impacted resources and the bank's replacement resources. It develops the framework for tracking the debiting and crediting of banking transactions. It institutes the standards for maintaining, monitoring, and the long-term management of the bank.

III. GUIDELINES AND POLICIES

The implementation, use, operation and maintenance of the Bank shall be consistent with the following guidelines and/or policy statements

- *Memorandum of Agreement on Early Mitigation Planning for Transportation Improvements in California (1991)*
- *Presidential Executive Order 11990 (1987)*
- *Applying the Section 404 Permit Process to Federal-Aid Highway Projects*
- *U.S. Fish and Wildlife Service Mitigation Policy (January 23, 1981)*
- *Mitigation Banking Guidance U.S. Environmental Protection Agency Region IX (December 20, 1991)*
- *EPA/ACOE MOA Concerning Determination of Mitigation Under the Clean Water Act Section 404(b)(1) Guidelines (February 6, 1990)*
- *Senate Concurrent Resolution 17 for the protection of oak woodlands in California (1989)*
- *Memorandum of Understanding Between the California Department of Transportation and the U.S. Fish and Wildlife Service (1988)*
- *Memorandum of Understanding Between the Department of Transportation and the Department of Fish and Game Regarding Construction of Transportation Facilities and Protection of Fish and Wildlife Resources (1979)*
- *U.S. Fish and Wildlife Service Guidance on Mitigation Banking (1983 and 1988)*

IV. APPLICABLE ECOREGION

The Bank is established to off-set appropriate habitat impacts from transportation projects in the lower Sacramento Valley and upper San Joaquin Valley. The geographic area, subject to restrictions in Sections V, VI, and VII, is indicated on the map in Attachment A. In general, habitat losses from projects below the 1500 foot elevation in the following counties can be compensated for in the bank:

Amador	Calaveras	Colusa
El Dorado	Nevada	Placer
Sacramento	San Joaquin	Solano
Stanislaus	Sutter	Tuolumne
Yolo	Yuba.	

V. CRITERIA FOR UTILIZING THE BANK

Use of the Bank will be deemed appropriate for compensation of habitat impacts when the following criteria have been met:

- *All practicable measures to avoid and minimize resource loss have been incorporated into the project design;*
- *A delineation of wetlands subject to jurisdiction under Section 404 of the Clean Water Act has been verified by the U.S. Army Corps of Engineers;*

- *Signatory agencies have agreed that total on-site replacement is not practicable, is inappropriate, or not in the best interest of the long-term protection and maintenance of the resource;*
- *The impact is within the defined ecoregion, unless an unusual situation exists and use of the bank is agreed to as the most appropriate action by the signatory agencies;*
- *The habitat being lost must fit one of the defined habitat classes within the bank and having sufficient credit. However, in agreed upon situations a relatively scarce or threatened resource may be substituted as compensation for an abundant one being lost. Out-of-kind mitigation must be agreed upon by all the signatory agencies;*
- *An evaluation of the impacted habitat's values has been accepted by the resource agencies;*
- *Functions other than wildlife habitat are adequately compensated for, either within the Bank or by other environmentally acceptable means.*

VI. APPROPRIATE HABITAT TYPES

The primary function of the Bank is to provide replacement habitat for losses to freshwater, valley wetlands (excluding vernal pools). Regulatory wetlands identified as freshwater wetlands (seasonal and/or permanent) or woody riparian (scrub-shrub and/or forested) will be mitigable at the Bank.

Design of the Bank will also create upland habitats (e.g. valley oak woodland, native grassland, elderberry savannah) to act as wildlife refugia and buffer areas, and may be used in combination with the wetland habitat, or alone, as appropriate mitigation.

As an ancillary benefit to the creation and restoration of wetland and sensitive upland habitat, the Bank design provides suitable conditions for several State and/or Federal candidate, rare, threatened, and endangered species. As provided for in Section VIII, acreage credited as wetland or upland may also be credited as acreage for endangered species mitigation as appropriate, and if agreed to by the federal and state endangered species offices.

VII. EVALUATION METHOD

The restoration goal of the Bank is to provide a high quality complex of habitats which complement each other and promote diversity and stability. Due to the linear nature of transportation projects, the Bank will primarily be used to compensate for small losses of wetland habitats (usually 1 acre or less, but with an upper maximum of <10 acres) generally already isolated or fragmented with only low to moderate functional values.

Attempting to create numerous distinct and highly specific habitat sub-classes would decrease the likelihood of success, reduce habitat values as each component would necessarily be smaller, not be consistent with current wetland restoration theory and goals, and be extremely expensive. Therefore, it is recognized that in many cases the replacement habitat may not precisely mimic the lost habitat (in-kind), but resemble historic wetlands and aquatic habitats of the Sacramento Valley. To accommodate these variations in specific community composition of the lost habitat and the replacement habitat, the exchange will be made using the following classification system:

1) Freshwater Wetland - seasonal
2) Freshwater Wetland - permanent
3) Woody Riparian - forested
4) Woody Riparian - scrub/shrub
5) Valley Oak Woodland

Each of these habitat categories have acreage goals and community composition goals as established in the Beach Lake Mitigation Bank Restoration Plan (Attachment B). Target acreages were based upon anticipated mitigation needs, estimates of minimum viable habitat sizes, desirable community complexity and stability, and other practical considerations. In addition, there will be associated upland habitat types which will increase habitat values of the wetland as well as the site as a whole and the Stone Lakes National Wildlife Refuge.

Extensive habitat evaluations by Caltrans will occur annually for at least the first five years of establishment of the Bank. Minimum mandatory evaluation criteria may include the following parameters:

Freshwater Wetland - Seasonal and Permanent
- 1) Species Composition
- 2) Relative Cover
- 3) Vegetation/Open Water Distribution
- 4) Vegetation Vitality
- 5) Hydrologic Monitoring

Woody Riparian
- 1) Species Composition
- 2) Stem Density
- 3) Absolute Cover
- 4) Vegetation Height
- 5) Vegetation Vitality

Wildlife Surveys
- 1) Species Composition

An On-going Monitoring program and a Performance Evaluation program will be implemented for monitoring of the site. Caltrans will prepare a detailed draft Monitoring Plan by November 15, 1993 discussing details of both aspects of monitoring (Performance Evaluation and On-going Monitoring). The other signatory agencies

will review and provide comments on the Monitoring Plan by December 15, 1993, and a final plan shall be produced by February 15, 1994.

Impacted habitat will be evaluated during the environmental assessment process for each project alternative, and classified as seasonal or permanent wetland, or woody riparian. A Caltrans biologist will perform the evaluation and request concurrence from the signatory agencies. Upon request by any of the agencies, an interagency evaluation team will be formed to perform the evaluation.

Compensation habitat evaluations will be reported annually and either the last regular report, or by request a special evaluation, will be used for credit exchange. A pre-restoration evaluation of the site will be used as the baseline for calculating initial available credits.

VIII. DEBIT AND CREDITING PROCEDURES

The Chief, Environmental Branch "C" of Caltrans District 3 will serve as the Bank manager and will perform all duties necessary to maintain the bank account, and all other required records and reports. It will be his/her responsibility to inform representatives from the other signatory agencies, at the earliest opportunity, whenever Caltrans is developing a project which may have habitat impacts that fit the criteria of this agreement and compensation at the Bank may be considered.

Agreement by signatory agencies to utilize the Bank as compensation for specific habitat losses from a project will occur during the CEQA/NEPA process and its documentation. All signatory agencies will be notified by Caltrans when use of the mitigation bank is proposed. Actual debiting of the bank account will take place after the project has final design approval and the appropriate permits, but prior to any activity which could adversely impact the existing habitat values. The bank manager will maintain a running account of all pending debit actions to ensure adequate habitat credits are available before the bank is considered for a new project. The bank manager will send action notices to each agency after each change in balance, credit, or debit.

The "currency of exchange" will be area as measured in acre units. For the three basic habitat types, debits will be made at a 3:1 ratio for woody riparian and 2:1 ratio for freshwater wetland until performance criteria are met. Thereafter, debits will be at a 1:1 ratio as long as the bank habitat continues to meet performance standards. Once a block of habitat credit has been used at its current value, it is no longer eligible to receive additional credit value in the bank account as it matures. Credits will not be available for exchange until conclusion of construction of the mitigation bank.

Debits will not be against any specific plot within the Bank. Instead, debits will be against the total acreage of the habitat category. A running tally of acreage previously debited and credit remaining will be maintained. Out of category exchanges can only be made with the consent of all signatory agencies.

If performance standards have not been met, it may be necessary for an interagency team to re-evaluate management activities, site design, or performance standards for modification or adjustment and for Caltrans to implement remedial actions to correct problems or inadequacies. Debiting from the Bank will cease if habitat values indicate a failure of the restoration effort. Caltrans will be held responsible for remediation or implementation of new mitigation to replace project mitigation credits already used at the mitigation bank in the event of mitigation failure.

The Bank has been designed to provide high quality resources with a wide range of values and functions important to the natural landscape of the Central Valley. Although primarily established to provide wetland habitat values, it is expected that the bank as a whole will provide additional values above those required for project wetland impacts. Therefore, it is agreed that the Bank units may provide credit for other impacted resources (such as Swainson's Hawk foraging habitat). Caltrans may request that specific additional credit be granted for a previously unspecified resource value. Use of mitigation bank credits for other resource values will be determined by an interagency evaluation and approved by the signatory agencies.

IX. MONITORING

Two components of monitoring will be implemented. One component will document progress toward attainment of specific performance criteria for each habitat type for calculation of mitigation ratios. Performance standards will be based upon community-based habitat evaluation procedures (HEP). The community-based HEP will be used to evaluate habitat values at the Bank for the reduction of mitigation ratios. Reduction in mitigation ratios would be based upon achievement of habitat value goals. As these goals are met, mitigation ratios at the Bank would be reduced. The formal performance determinations using community-based HEP will take place when habitats have become established and Caltrans wishes to reduce the mitigation ratios.

The other component of monitoring will be an ongoing program to document habitat values at the Bank. An informal evaluation using community-based HEP may be regularly used as part of the ongoing monitoring evaluations to be implemented for this project. Annual reports documenting site conditions and trends will be prepared and submitted to interested agencies. Extensive habitat evaluation reports will be completed annually by Caltrans for at least the first five years following bank establishment and submitted to each

signatory agency. This report will be used as the evaluation of compensation habitat for exchange until the next monitoring examination or a special evaluation is performed.

Thereafter, Caltrans will continue an informal monitoring program (every other year) to ensure the bank continues to adequately function and provide the required habitat values. A letter will be filed with each agency once a year indicating the bank is adequately functioning and properly maintained and would detail any remedial actions taken during the year.

Upon reasonable notice, any signatory agency can participate in a monitoring survey, or a formal field review. If there is disagreement on the adequacy of the performance, existing values, or the management program, any party may request an interagency evaluation. If determined to be appropriate by the signatory agencies, adjustments or operational changes will be implemented.

X. MANAGEMENT

Caltrans is responsible for ensuring that the bank will be maintained as a high quality natural resource and meet all obligations and commitments of this agreement and those contained in mitigation agreements for which the bank is providing replacement habitat values, during the period in which it exercises control. Caltrans may contract for maintenance and operation with a third party acceptable to the other signatory agencies. Caltrans will provide a funding mechanism to pay for future operation and maintenance of the mitigation bank.

Caltrans, acknowledging its fundamental role as a transportation planning organization and not a natural resource trustee, intends for the U.S. Fish and Wildlife Service (Stone Lakes National Wildlife Refuge) to take eventual ownership and/or conservancy of the bank in perpetuity. The long-term operation and maintenance funding mechanism will be provided to the conservator (U.S. Fish and Wildlife Service) for maintenance of the site in perpetuity. The conservator will adhere to provisions of the Restoration Plan and this Agreement on Mitigation Strategy. Deed restrictions would be implemented upon transfer of the Bank to ensure adherence to the Plan and Agreement. The conservator will be approved by all signatory agencies. When transfer of control and management responsibility of the bank to the U.S. Fish and Wildlife Service has been concluded, Caltrans' long term preservation obligation will be transferred. Caltrans may retain certain responsibilities and/or obligations until exhaustion or relinquishment of any remaining habitat credits and until completion of habitat monitoring requirements.

XI. DEFINITIONS

ACRE-UNIT - A unit of measured area expressed as acreages supporting wetland or riparian habitat and wetland or riparian habitat values not preexisting at the mitigation bank site prior to bank development. Acre-units are used for the mitigation bank accounting processes.

CEQA - The California Environmental Quality Act, California Public Resources Code Sections 21000 et seq.

ENDANGERED SPECIES - Federal definition: An endangered species is any species designated as being in danger of extinction throughout all or a significant portion of its range, excluding insects determined by the Secretary to be pests (16 USC 1532, 50 CFR 424.02). State definition: An endangered species is a native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that is in serious danger of becoming extinct throughout all or a significant portion of its range (Fish and Game Code Sec. 2062).

HABITAT - The natural environment of an organism; the place where it typically is found.

HYDRIC SOILS - Soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation

HYDROPHYTIC VEGETATION - The sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present.

MITIGATION - The lessening of project impacts by avoidance, minimizing impacts, rectifying the impact, reducing or eliminating the impact over time, or compensating for the impact.

MITIGATION CREDIT - A unit of measured area supporting wetland or riparian habitat and wetland or riparian habitat values not preexisting at the mitigation bank site prior to bank development.

MITIGATION DEBIT - An amount subtracted from the overall available mitigation credit total to compensate for unavoidable transportation project impacts.

NEPA - The National Environmental Policy Act (42 U.S.C. 4321 et seq.).

PERMANENT WETLAND - Permanent soil inundation or saturation by surface water or groundwater resulting in a prevalence of vegetation adapted for life in saturated soil conditions.

PRACTICABLE - Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes.

PROJECT - Any Caltrans action that has potential effects on the environment.

RIPARIAN HABITAT - Woody vegetation (trees and shrubs) that grows in soils saturated for a substantial portion of the year, especially on the edges of open water (lakes, riverbanks, ditches). For purposes of this Agreement, two classes of riparian habitat are addressed:

1. Forested - The wetland class characterized by woody vegetation that is 6 m or taller.
2. Scrub-shrub - The wetland class characterized by woody vegetation that is less than 6 m tall.

SEASONAL WETLANDS - Soil inundation or saturation by surface water or groundwater occurring periodically during the growing season of the prevalent vegetation, sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Although vernal pools are typically considered a type of seasonal wetlands, vernal pools shall not be considered for mitigation at the Beach Lake Mitigation Bank. Seasonal wetlands dominated by species within the following generalist hydrophyte genera: Juncus, Eleocharis, Scirpus, Polygonum, Cyperus, Carex, and Typha would ordinarily be mitigable at the Beach Lake Mitigation Bank.

THREATENED SPECIES - Federal definition: A threatened species is any species designated as likely to become endangered in the foreseeable future throughout all or a significant portion of its range (16 USC 1532, 50 CFR 424.02). State definition: A threatened species is a native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by the California Endangered Species Act (Fish and Game Code Sec. 2067).

VERNAL POOLS - Vernal pools are seasonally flooded landscape depressions that support a distinctive flora and fauna adapted to periodic or continuous inundation during the wet season. Vernal pools typically are dominated by annual plant species (e.g. Downingia, Psilocarphus, Pogogyne), but may also include some perennials (e.g. Eryngium). Vernal pools shall not be considered for mitigation at the Beach Lake Mitigation Bank.

WETLANDS - Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

WETLAND HYDROLOGY - The area is inundated either permanently or periodically at mean water depths less than or equal to 6.6 feet, or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation.

WETLAND MITIGATION BANK - A single contiguous parcel of land consisting of nonwetland habitat which has undergone those physical changes necessary to create and optimize the acreage and quality of wetland habitat on the site for the express purpose of providing mitigation credits to offset the adverse impacts to wetlands from approved projects elsewhere.

XII. EFFECTIVE DATE, TERMINATION OR MODIFICATION

This Agreement on Mitigation Strategy will become effective when approved by the Caltrans District 3 Director, Federal Highway Administration California Division Division Administrator, U.S. Environmental Protection Agency Region IX Water Management Division Director, U.S. Fish and Wildlife Service Sacramento Field Office State Supervisor, U.S. Army Corps of Engineers Chief Construction-Operations Division, and the California Department of Fish and Game Region 2 Manager.

This agreement may be modified with the written approval of all signatories to the Agreement on Mitigation Strategy. Modifications may be proposed by a single or inter-agency team of signatories. Proposed modifications will be submitted for a sixty-day period of review to all signatories.

A signatory may terminate its participation in this agreement upon written notice to all other signatories.

This agreement is intended to supplement, not replace, any existing agreements between any of the parties.

For the CALIFORNIA DEPARTMENT OF TRANSPORTATION

John L. Allison

John L. Allison, District Director
Caltrans District 3

10-19-93
Date

For the FEDERAL HIGHWAY ADMINISTRATION

for Leonard E. Brown

Roger Borg, Division Administrator
California Division, Sacramento

12/17/93
Date

For the U.S. ENVIRONMENTAL PROTECTION AGENCY

for William H. Piers

Harry Seraydarian, Division Director
Water Management Division, Region IX

4/13/94
Date

For the U.S. FISH AND WILDLIFE SERVICE

Wayne S. White, State Supervisor
Sacramento Field Office

2/23/94
Date

For the U.S. ARMY CORPS OF ENGINEERS

D. A. Dennis, Chief
Construction-Operations Division

3/21/94
Date

For the CALIFORNIA DEPARTMENT OF FISH AND GAME

L. Ryan Broddrick, Regional Manager
Region 2

3/24/94
Date